

Top management of innovative competitiveness in industries

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Abstract: Competitiveness is a key criterion for evaluation of success degree of countries, industries, and firms in political, economic, and commercial fields of competition. With rapid advances and changes in the world, innovative competitiveness has gained a special importance to speed up the development of the economy of industries. One of the consequences of globalization is the emergence of cross-regional economies which have increased their gross domestic production (GDP) compared with other countries and caused changes in production techniques in industries in order to produce new and modern products. Hence, some authors believe that regional changes and political and economic relations of countries with each other can speed up and develop the innovative competitiveness. Porter's Diamond model, conceptual frameworks, and the review of industries of developing countries were used in this study to precisely identify the components of competitiveness.

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1. Introduction

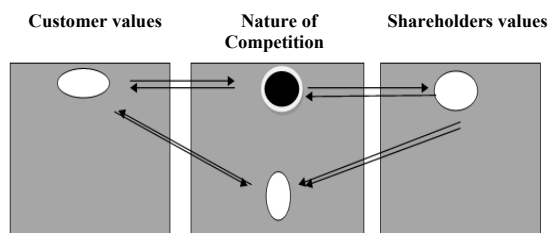
The challenge caused by global competition has increased the pressure on organizations to improve their skills, capabilities, and the quality of their services and products. Principles of total quality management (TQM) have been widely accepted throughout the world as a tool to improve organizational performance and the nature of organizations and deal with particular challenges of markets (Tan, P.K.L. 1997). Asian financial crisis which started in the middle of 1997 with Thailand's financial-cash crisis triggered a chain that affected almost all Asian countries. This crisis and conflicting changes that are raised have had several points and hints for improvement of economic and developmental situation in organizations and industries of Asian countries and caused extensive changes in the structure of these organizations. These changes have significantly affected the movement of total quality management. Principles of total quality management have been widely accepted throughout the world as a tool to improve organizational performance and the nature of organizations and deal with particular challenges of markets.

Pattern of competitiveness through considering the enablers creates the foundations of improvement in different dimensions of organization and establishes a logical consistency in each of them by a systematic approach. On the other hand, it creates a synergy in organizational enablers by integrating the complex of enablers, resulting in improved capability of employees, increased quality, and access to new markets. Consequently, profitability of organization can be guaranteed by ruling out the competitive intelligence and driving strategies on organization.

1.1. Competitiveness:

Competitiveness has been defined as ability and desire to enter the competition. Economically speaking, Michael Porter defines it as efficiency and how an organization or nation uses its own human resources, capital, and natural resources (Porter, M. (1998a)). In a small scale, competitiveness is referred to a value that a product creates for the customer compared with a competing product which depends on two factors including the amount of utilities met from ownership or possession of a product for the customer and cost of ownership or possession of a product for the customer. Distinction in each of these two factors makes the organization competitive. If an organization sets its strategy based on offering more special and superior utilities than competitor to the customer, it has chosen the strategy of distinction and if an organization follows the strategy of offering non-competitive prices, it has chosen the strategy of cost leadership. Strategy of distinction improves the competitiveness using more utilities, while cost leadership strategy makes the organization competitive compared with competitor by reducing inutilities (costs) (like Chinese clothing manufacturers). Each of these strategies will make the organization competitive in a competitive market. In addition to proper response to competitive market of product and service, a successful organization should be accountable to capital market. Costs of these strategies for producer and operating profit of company for the shareholders must be acceptable for this purpose. Competitiveness has been defined as ability and desire to enter the competition. Economically speaking, Michael Porter defines it as efficiency and how an organization or nation uses its

own human resources, capital, and natural resources (Porter, M. (1998a)). In a small scale, competitiveness is referred to a value that a product creates for the customer compared with a competing product which depends on two factors including the amount of utilities met from ownership or possession of a product for the customer and cost of ownership or possession of a product for the customer. Distinction in each of these two factors makes the organization competitive. If an organization sets its strategy based on offering more special and superior utilities than competitor to the customer, it has chosen the strategy of distinction and if an organization follows the strategy of offering non-competitive prices, it has chosen the strategy of cost leadership. Strategy of distinction improves the competitiveness using more utilities, while cost leadership strategy makes the organization competitive compared with competitor by reducing inutilities (costs) (like Chinese clothing manufacturers). Each of these strategies will make the organization competitive in a competitive market. In addition to proper response to competitive market of product and service, a successful organization should be accountable to capital market. Costs of these strategies for producer and operating profit of company for the shareholders must be acceptable for this purpose.



1.2. The concept of competitiveness:

Views of various experts and scholars show that there is no uniform definition and interpretation of competitiveness. Generally, competitiveness can be defined as competencies and capabilities that a business, industry, region, and country possesses and can maintain them to produce a high return rate in manufacture parameters in the international competition and keep their human resources in a relatively high status. In other words, competitiveness is the ability to increase market share, profitability, increased the value added, and remain in a fair international market for a long period (Castellacci Fulvio. 2008). Competitiveness is a combination of assets and processes. Assets are whether blessings like natural resources or created by human like infrastructures. Processes convert the

assets to economic benefits derived from product sales to customers and thereby create competitiveness. Competitiveness can be viewed from another perspective which is the sources of competitiveness. Competitiveness sources can be divided into three categories including technology, organization, and human resources. Competitive advantage obtained from human resources is more durable and sustainable than other competitive advantages and more time is required to allow competitors to imitate such competitive advantages.

1.3. Porter's Diamond model:

Michael Porter is a Harvard Business School professor and one of the most active researchers in the field of competitiveness studies. He wrote the book "Competitive Strategy" in 1980 and the book "Competitive Advantage" in 1985. Additionally, he published another book named "Competitive Advantage of Nations" in 1990, in which Diamond model is introduced. A variety of theories and models have been proposed to explain and interpret the competitiveness, Porter's Diamond model has a special importance and position among them. According to this model, four main parameters including internal factors, domestic demand conditions, relevant and supporting industries, and strategy, structure, and competition have a direct impact on competitiveness of countries and their industries. In addition, government and unforeseen events indirectly affect the competitiveness. Although this model has been the basis of many studies around the world and attracted the attention of many researchers, it has totally some weaknesses. Lack of emphasis on international issues and global markets and neglecting the displacement of production factors by multinational corporations and foreign direct investment are some these weaknesses. Additionally, government's role in underdeveloped countries is beyond an indirect effect. Hence, these points should be taken into account in assessment of competitiveness based on Porter's Diamond model.

1.4. The role of technology in competitiveness:

Competitiveness is a process through which any institution tries to excel others. In fact, it can be considered as an attempt by a firm, industry or country to catch up another firm, industry or country in the competition. At the international level, countries due to lack of financial, technical, and specialized resources should compete with each other in order to achieve wealth and benefit their society with prosperity. Therefore, acquisition of competitive capabilities has become one of the major challenges of countries in today's world at the international level. Various factors are prerequisite for the enjoyment of competitive power at the national and international level. These factors include standard of living, trade,

productivity, and investment. The combination of these factors determines the competitiveness of a country at the international level. Technology can play a key role in each of these factors. Necessary infrastructures for investment can be provided with the help of technology. Also, technology increases production efficiency and thereby the productivity. The following example can clarify the role of technology.

1.5. Japan Wall (made of thinking and creativity):

Geoffrey C. Lloyd, (1996), talked about the construction of Japan Wall in his memories of visiting a Japanese factory producing car clutch in 1987. Unlike the Chinese wall which is based on tyranny, this wall is built of the glorious thoughts of factory's staff. "When I was viewing visiting the many wonders in production hall of this factory, I noticed one of the walls of this hall with a length of about 50 meters and a height of 8 meters covered by papers full of notes. Curiosity forced me to ask a question about it. In response, I found that these papers were the recommendations of employees for converting the production system into CAD/CAM (Computer-Aided Design/ Computer-Aided Manufacturing) and each employee had proposed 11 written recommendations on average. Since the management believed that the success of this project owed for the proposals of employees at all levels and also in order to encourage and promote participatory management system and recommendations system, the largest longitudinal wall of this hall was adorned with the thoughts of employees. In fact, many researchers introduce the recommendations system as the main system and tool for continuous improvement and the main core of all superior systems of quality and productivity based on such observations. Brady, J.E. & Allen, T.T. (2006)) state "Probably before the Six Sigma project, you should consider a recommendation system program and run it." According to Miller, it is the pure creation of thinking in a business that makes all committed to daily improvement. Recommendations system is one of the tools of pure production which is misunderstood and misused. Luis Arroyo, the director of advanced production of Sensormatic Company and the winner of Shingo Prize that the company he is working there has recently saved 1.7 million dollars through the recommendations of 1200 employees, believes that recommendations system is a critical and important component in helping us to implement the pure production. This system makes it easier for us to do basic tasks. Currently, 91.7 of registered enterprises in Tokyo Stock Exchange are implementing the recommendations system. According to Administrative Law America, all state institutions have a specific fund and administration to

implement the recommendations system and the best offer or receives a plaque of appreciation and awards from the President of the US every year (Hahn, G.et.al. (1999).

1.6. Value index:

Competitiveness management is a conceptual model which establishes the balance between benefits and costs of supply and demand. Whenever this relation reaches the optimal point in practice, long-term success in business is guaranteed. This pattern is very valuable and provides an effective analytical basis for evaluating different management approaches and their impact on the success of the organization. But this pattern is too general to have a direct impact on management decisions. Value index has been developed for this purpose. Value index is a simple ratio which determines the value of a management decision from the perspective of theory. The concept of value index is very clear, but its calculation requires real data and sometimes filed study. This index shows the extent to which a management decision about quality (and even non-quality) can make an organization more competitive. If this pattern and its mechanisms are continuously the foundation of management decisions for a long time, the organization obtains the ability to enter in heavy competition and can powerfully stand the threatening and unavoidable environmental phenomena. Perhaps if the managers of Pan American and Swiss Air had shaped their decisions by this logic during the last few decades, their brand would be still in flight.

1.7. Sustainable (fixed) competitiveness advantage in e-commerce:

Although competitiveness and achieving it is considered the key for success and superior performance of organization, it should be taken into account that competitive advantage must be sustainable. Obtaining a temporary competitive advantage cannot be effective for the organization and will be lost easily. In e-commerce, in which technological environment is considered a crucial factor and is rapidly and constantly progressing and changing, competitive advantage becomes more vital and it is more difficult to be maintained and sustained. Hence, organizations should seek to achieve a way that leads them towards gaining a sustainable competitive advantage. Amit, R. and Zott, C. (2000) described the way to gain competitive advantage through the internet as the main and vital tool in e-commerce. At the beginning, companies are in the same competitive state. In this state, the use of the Internet and its applications are almost identical in different companies. This continues until this balance is disturbed. This balance is disturbed when an organization uses the internet advantage at a

higher level. Internet must have the ability to generate income or reduce operating costs to be considered a valuable resource. If this occurs and the Internet generates revenue or reduces costs or both, the organization achieves a temporary competitive advantage. Internet should have some features such as scarcity, difficulty of imitation, and difficulty of replacement to be fixed as a valuable resource. If these conditions exist, organization achieves a minimum of temporary competitive advantage. However, it should be noted that organizations cannot maintain their competitive advantage by meeting these conditions in today's electronic and full of turbulence world, unless there be obstacles to the transfer of replacement and imitation of the source. Since the Internet is a global media, aforesaid obstacles cannot be realized. So, how the Internet can be considered the source of sustainable competitive advantage when it lacks these obstacles?

Studies show that competitive advantage is achieved when the Internet is applied as a supplement to other resources of an organization. The key point in e-commerce is that the Internet should not and cannot be used as a substitute for traditional tools of competition, but it should be used alongside traditional tools and as a supplement, because the Internet is not inherently a competitive advantage (Amit, R. and Zott, C. (2000)).

2. Discussions

Competitiveness can be defined as competencies and capabilities that a business, industry, region, and country possesses and can maintain them to produce a high return rate in manufacture parameters in the international competition and keep their human resources in a relatively high status. This has not been possible without the participation of all employees. Recommendation system is the most effective system which is known to attract the participation of employees and other individuals associated with the organization. Correct implementation of this system is the first and most important step in achieving superior systems of quality and productivity. Competitive advantage must begin within the organization and then continue. For sustainable and profitable exports, environment and the market must firstly be identified, new markets should be created, and finally they must be attracted. There are different strategies to make an organization competitive. Deployment of competitiveness and excellence model in the organization is one of these mechanisms which leads to competition at the international level. A distinction strategy is valuable

when the customer is ready to pay much more money than production cost for its results in the product (good or service). In cost leadership strategy, this criterion emphasizes on the increase of product value (benefits-costs) from the perspective of the customer and the increase of marginal profit of manufacturer. These are the examples of the use of value-oriented attitude in improving the competitiveness of the organization. Nowadays, having a correct attitude to the concept of quality and understanding of its deep relationship with strategy and competitiveness are more important than the knowledge and skills of using the quality tools. We hope that the present paper is helpful in creation of this attitude.

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